

Sustainment Calculator Overview

CAIS CostWorks User
Group Mtg.

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RPAM Drivers

- **Requirements** - Sustainment and recapitalization requirements must be developed in support of the department's strategic plan, the Secretary's 5 - year planning guidance, and appropriate program guidance.

RPAM Drivers

- **What is Sustainment** - Maintenance and repair activities to keep the inventory of facilities in good working order. This includes regularly scheduled maintenance as well as anticipated major repairs or replacement of components that occur periodically over the the expected service life of the facilities.

What is Sustainment?

- **Regularly Scheduled Maintenance**
 - Preventive Maintenance (PM) That is periodic and planned on an annual basis. (i.e. Filter changes)
- **Anticipated Maintenance**
 - Maintenance and Repair (M&R) activities that include removal and replacement, repair and refinishing tasks. Ex. Replacing a chiller, repairs to plumbing fixtures,

DOE Sustainment Approach

- Use CostWorks building model assemblies mapped to RS Means Facilities Maint. & Repair (FM&R) costbook.
- RS Means FM&R book has data on preventive, maintenance and repair and replacement costs and frequencies for model equipment and components.

Why CostWorks?

- Design Issues
 - RS Means FM&R data has contributed to existing A&E sustainment products.
 - All FM&R data is in CostWorks.
 - DOE Custom models can be mapped to FM&R assemblies.

Why CostWorks?

- Flexibility/Customization
 - Sites participated in design of models and calculator.
 - Assemblies can be individually tracked for PM and M&R costs.
 - DOE has complete access to all FM&R costbook assemblies.
 - For unique assemblies (Pantex), PM and M&R can be developed by RS Means.

Why CostWorks?

- Cost/Implementation
 - Cost is born by program offices through the annual funding of CostWorks.
 - Future enhancements funded by program offices.
 - Distribution of updates follows existing CostWorks release schedules.

Sustainment Calculator Development

- CAIS User Group advocates RS Means mapping model assemblies in Oct 2004.
- Parsons Brinckerhoff mapped model assemblies to FM&R data in 2005.
- Eight (8) concept models were developed in 2006. (Spurred by NTS).
- Site review concept models in April 2006.
- Models provided to RS Means in June 2006.
- SOW developed and RS Means replies in August 2006.

RS Means Development

- Phase 1
 - Applies to 69 buildings & 7 OSF plant models.
 - Assemblies mapped to PM, FM&R costs and frequencies in RS Means FM&R database.
 - RS Means completes development and distributes 50 CDs in March 2007.
- Phase 2
 - RS Means will develop PM and FM&R costs for unique DOE assemblies in FY '08.

FIMS Data Needs

- Property Data
 - Site & Area No, Property ID (from model)
 - GSF, Year Built, RPV
- Model Data
 - RPV Model Name

Sustainment Calculator Features

- **Workbooks**

- Cost Details, Summary Table and Sustainment Chart

- **Flexibility**

- Building Age reflected using Last R&R field.
- Customize M&R and replacement frequencies.
- Customize PM, M&R and replacement costs to actual costs.
- Includes Sustainment cost factors for PM, M&R and replacement costs.
- Includes cost indexes to project out-year costs.
- Cycle from 1 - 100 years. (Default 10 year cycle)

Discussion: Ideas for Future Development

- **Develop PM, M&R, and replacement costs for unique DOE assemblies.**
- **Develop Average cost percentages for HQ.**
 - How many models are necessary to estimate sustainment? Eighty (80) or a smaller subset?
 - Calculate averages based on existing Summary Table indexed ratios.
 - Compare 50 year and 100 year interval averages.
 - Compare two ratios, one for assets ≤ 25 years old and one for assets > 25 years old.

Discussion: Ideas for Future Development

- **Develop Average cost percentages for HQ. (cont.)**
 - Investigate expanding 100 year cycle to 150 year to cover “old” assets. Is it necessary?
 - Investigate developing percentages that would function (calculate averages) using the age of the asset as the starting point of the average calculation.
 - Based on averages develop charts and reports for 10 year site plans.
 - Investigate calculating ratios for PM, M&R and Replacement costs. Any value added?